

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: IMPELLIZZERI, Frederic

SERIAL NO.: 10/530,683

ART UNIT: 3733

FILED: September 02, 2005

EXAMINER: Kim, John

TITLE: SELF-LOCKING OSTEOSYNTHESIS DEVICE

Amendment B: CLAIM AMENDMENTS

Claims 1 - 9 (canceled). These claims were canceled by an earlier amendment.

Claims 10 - 18 (canceled). These claims are canceled by the present amendment.

19. (new) A self-locking osteosynthesis device comprising:

a plate having a plurality of openings formed therein, each of said plurality of openings having a diameter, said plate being formed of a metallic material;

a plurality of inserts respectively fixedly and non-rotationally received in said plurality of openings, each of said plurality of inserts defining a hole having a smooth wall and a diameter less than the diameter of the opening, each of said plurality of inserts being formed of a biocompatible polymeric material; and

a plurality of bone screws respectively received in said hole of said plurality of inserts, each of said plurality of bone screws having a thread on an outer surface thereof, said biocompatible polymeric material suitable for allowing a self-tapping of said smooth wall of said hole with the thread of said plurality of bone screws, said plurality of bone screws having a head locked in said plurality of inserts when the thread of the bone screw engages an underlying surface.

20. (new) The device of Claim 19, said plurality of inserts being formed of a thermoplastic polymer.

21. (new) The device of Claim 19, said plurality of inserts being formed of a polyether ether ketone material.

22. (new) The device of Claim 19, the hole having a conical shape.

23. (new) The device of Claim 19, said plate being formed of titanium.

24. (new) The device of Claim 19, said plurality of inserts being molded respectively into said plurality of openings.

25. (new) The device of Claim 19, said plurality of inserts being mechanically secured respectively in said plurality of openings.

26. (new) A self-locking osteosynthesis device comprising:

a plate having a plurality of openings formed therein, each of said plurality of openings having a diameter, said plate being formed of a metallic material;

a plurality of inserts respectively fixedly and non-rotationally received in said plurality of openings, each of said plurality of inserts defining a hole having a smooth wall and a diameter less than the diameter of the opening, each of said plurality of inserts being formed of a biocompatible polymeric material; and

a plurality of tapping screws threadedly secured respectively in the hole of said plurality of inserts, said biocompatible polymeric material suitable for allowing a self-tapping of said smooth wall of said hole by the tapping screw, each of said plurality of tapping screws having a head formed at an end thereof, said head having a conical shape, said head having a conical threading formed thereon, said conical threading engaging said smooth wall of said hole.

27. (new) The device of Claim 26, said plate having a shoulder extending into each of said plurality of openings, said shoulder engaging the insert so as to prevent a rotation of the insert.